

## DOCUMENT RESUME

ED 082 429

EC 060 210

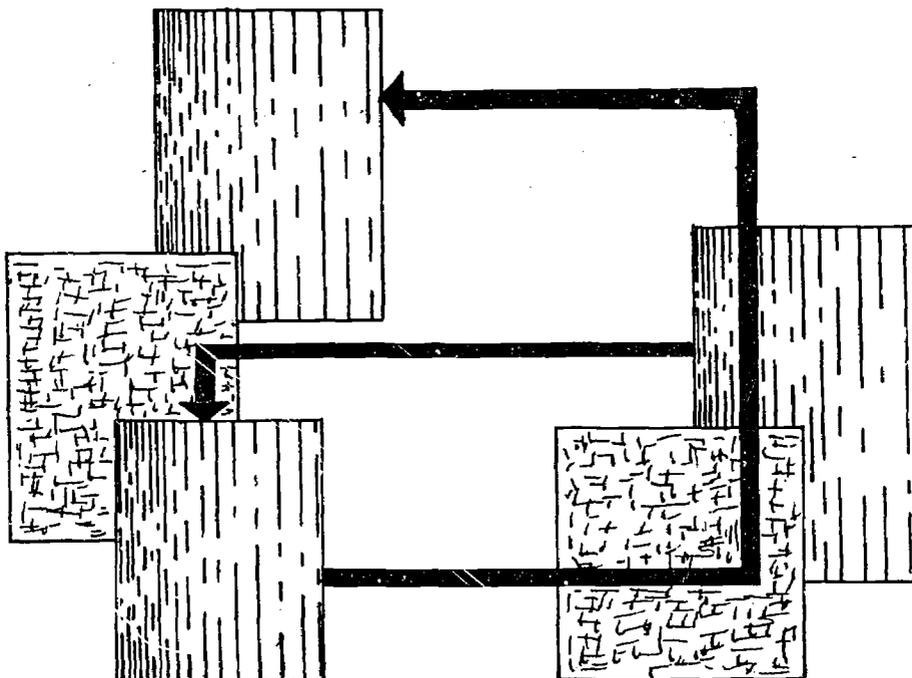
AUTHOR McCabe, Mary Pat  
TITLE Adaptation of Material and Equipment for Individualizing Remediation in Learning Disabilities Resource Rooms.  
INSTITUTION Escambia County Board of Public Instruction, Pensacola, Fla.  
SPONS AGENCY Florida State Dept. of Education, Tallahassee. Education for Exceptional Children Section.  
PUB DATE Jun 73  
NOTE 48p.  
EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Audiovisual Aids; Cognitive Development; \*Exceptional Child Education; \*Instructional Materials; Language Development; \*Learning Disabilities; Perceptual Development; \*Remedial Instruction; Special Education Teachers

## ABSTRACT

Presented for new special education teachers is a brochure containing descriptions and approaches to use of equipment and materials that aid in remediation of learning disabilities in elementary school children. The brochure is said to be based on the assumption that the new teacher understands the major theories which deal with learning disabilities and responses of children with the handicap. Usually given are source, price, a brief description, and activities for the following items of equipment or materials: language master; audiotronics tutorette; tape recorder; language master or tape recorder; dual track recorder; dual track recorder or language master; overhead projector; study mate II projector; overhead, study mate II, or filmstrip projector; flash-X, shadowscope pacer; Hegge, Kirk, and Kirk reading drills; let's read series; Michigan tracking program; and teacher prepared materials. Remediation activities to strengthen specific deficits are listed tabularly for each item of equipment or material in auditory/vocal, auditory/motor, visual/vocal, visual/motor, and multisensory areas. (MC)

ED 082679

# ADAPTATION OF MATERIAL AND EQUIPMENT FOR INDIVIDUALIZING REMEDATION IN LEARNING DISABILITIES RESOURCE ROOMS



ESCAMBIA COUNTY  
FLORIDA - JUNE, 1973  
EHA - PL 91-230  
TITLE VI-B

FILMED FROM BEST AVAILABLE COPY

ED 082429

ADAPTATION OF MATERIAL AND EQUIPMENT FOR INDIVIDUALIZING  
REMEDATION IN LEARNING DISABILITIES RESOURCE ROOMS

Developed by  
Learning Disabilities Teachers  
Escambia County

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY.

EHA Title VI-B, P.L. 91230  
June, 1973  
Mary Pat McCabe, Project Director

Division of Instruction  
Escambia County Schools  
Pensacola, Florida

## FOREWORD

Florida legislation mandating provision for all exceptional children will present a challenge to many beginning teachers in the newly recognized area of learning disabilities (LD). The identification of students with learning disabilities significantly exceeds current university programs for teacher preparation in this area. School systems will attempt to meet this challenge by providing inservice training, and where available, university sponsored courses. Many new LD teachers will, nevertheless, enter the field feeling not as well prepared as they would like.

In 1971, the Florida Department of Exceptional Child Education, through EHA Title VI-B funding began to develop model demonstration programs in each essential component of a learning disability program. One of the objectives of each program was the dissemination of information to counties initiating LD programs. The following counties participated in the EHA Title VI-B Project: Alachua - Screening; Volusia - Diagnosis; Dade - Prescription; Escambia and Pinellas - Remediation.

Escambia County's primary objective was to determine the effectiveness of using supervised teacher aides in LD resource rooms to expedite remediation. Project funding provided for some material and equipment, which, with that already being utilized, was evaluated by the Escambia County LD teachers in terms of efficiency, economy and adaptability for individualizing remediation. This brochure is one product of that evaluation. Hopefully, the reader will find this brochure helpful, not as a 'handy guide' but more as a motivator for task analysis and individualized instruction.

Mary Pat McCabe, Coordinator  
Learning Disabilities Program  
Escambia County, Florida

## INTRODUCTION

The field of Learning Disabilities, though still in its infancy stage in recognition, remediation and research, has already produced many theories and corresponding programs. The consensus has been that each of these theoretical models has usually advanced diagnostic and/or remedial procedures.

This brochure assumes the new LD teacher understands the major theories and accepts the following hypotheses:

1. No two LD students present identical profiles nor respond in the same way to a specific program.
2. Individualizing instruction expedites remediation.
3. All remediation activities require critical task analysis of the student's strengths and weaknesses (verbal and non-verbal) in terms of appropriate input and response.

Prior to 1970, the Escambia County LD Program subscribed to the philosophy of teaching through the strength while attempting with additional activities to remediate the deficit. Although some students made progress, total program evaluation suggested an examination of other approaches. Universities with doctoral programs were contacted and John Dewitt, University of Arizona, was employed as Director of the 1970 LD summer program. As a result of that practicum, in which several Escambia County LD teachers worked with Mr. Dewitt in transferring theory into practice, two major changes emerged in the county program:

1. Remediation activities, whenever possible, were oriented towards an academic task, (e.g., visual or auditory memory drills included spelling or social studies words or math facts versus pegboard, block and bead activities).

2. LD teachers shifted from 'compensatory' remediation in the resource room to a more direct confrontation with the specific deficit, i.e., the strongest learning channel, used to compensate, may in some cases be "blocked" with an additional channel involved to strengthen the deficit area. This approach is a debatable issue but has been used in this county with positive results. LD teachers also work closely with the classroom teacher in developing compensatory approaches for the regular classroom, i.e., teaching around the deficit while remediation in the resource room is directed to the deficit.

This brochure presents frequently used equipment and material and some of the ways each can be adapted to individualize remediation. Tables I-V, pp. 37-42, are included for quickly locating remediation activities for specific deficits. In addition to the material and equipment discussed in this brochure, other commercially prepared materials (e.g., Barnell Loft Specific Skills Series, Peabody Language Development Kits, Continental Press material etc.) are utilized and the manuals accompanying these programs suggest a variety of activities.

Realizing that no one technique is the solution to every individual problem, this brochure is not presented as a "cook-book." It is hoped that it will be used by creative teachers to evolve further appropriate techniques.

Learning Disabilities Teachers  
Escambia County, Florida

## TABLE OF CONTENTS

Language Master .....	1-5
Audiotronics Tutorette .....	1-5
Tape Recorder .....	6-7
Language Master or Tape Recorder .....	8-10
Dual Track Recorder .....	11-12
Dual Track Recorder or Language Master .....	13
Overhead Projector .....	14-17
Study Mate II Projector .....	18-19
Overhead, Study Mate II or Filmstrip Projector .....	20-21
Flash-X .....	22-23
Shadowscope Pacer .....	24-25
Hegge, Kirk and Kirk Reading Drills .....	26-27
Let's Read Series .....	28-29
Michigan Tracking Program .....	30-31
Teacher Prepared Materials .....	32-36
Tables I-V .....	37-42

LANGUAGE MASTER OR TUTORETTE - MODEL 800

Bell & Howell, Inc.

Audiotronics, Inc.

Approximate Price: \$275.00

Approximate Price: \$209.00

The Language Master was selected as a teaching tool because of its versatility and easy operation. The value of a two track recording device with various sized blank tape cards was evident in remediation activities designed for independent and individualized tasks. Note: The recently available Audiotronics Tutorette meets the aforementioned specifications and the training cards (Language Master/Tutorette) can be used with either machine.

#### Activities

1. The teacher records a paired stimulus such as environmental sounds, intensity variations, rhythms, pitches, phonemes, or words on the instructor's track of the Language Master. The student responds on the other track, denoting whether the pairs were the same or different. He then turns the card over to find the correct answer written or coded on the back. He may repeat this exercise until he has a perfect score on all the presented cards.

\* \* \*

2. For the student who cannot keep up with the teacher's rate of spelling dictation, sentences or phrases may be placed on the Language Master cards. The student tries to write the dictation before the card reaches the end of the recording slot. Repetition of the exercise should encourage speed and fluency in classroom dictation.

\* \* \*

3. A card displaying a picture and its printed name is used

with the machine. When the student inserts the card he will hear the word, see a description of the word, and then hear the word again. The student then records the word on the second track. This multi-sensory approach is a helpful reinforcement for words which are difficult for the student.



\* \* \*

4. Phonemes are pre-recorded on the instructor track of the Language Master. The student selects from several flash cards the one with the corresponding grapheme. Cards are coded on back to provide student immediate reinforcement for correct response.

\* \* \*

5. Multi-syllabic words, sentences, or non-sense phrases are pre-recorded on the Language Master. The student listens to the words, records on the student track, and compares his responses to the model. He judges the quality and continues recording until he feels he has reproduced the cue accurately. This activity is helpful in the development of auditory reception, memory, expression and sound blending.

\* \* \*

6. Alphabet sequencing:

- a) Beginning with the letter "a," the student listens to the recorded letter name as he looks at the letter which is written on the card. He then records and/or writes the letter. He does the entire sequence in this manner.
- b) As a second step the student would write or say the next letter in the sequence, before seeing or hearing the letter on the next card. He then listens and looks to monitor his production.

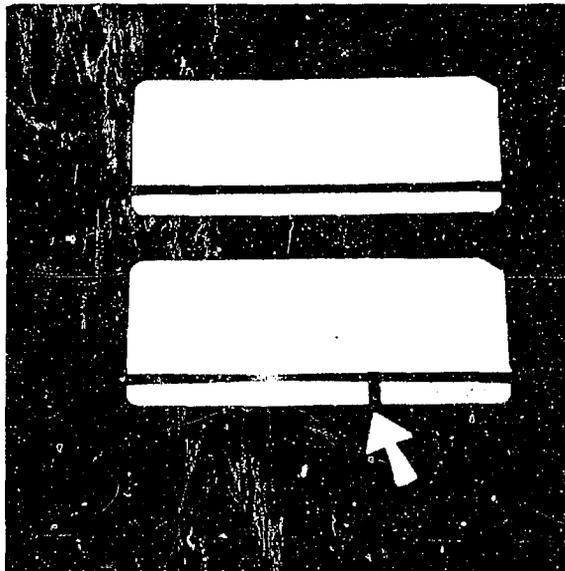
\* \* \*

7. Math facts are interspersed on the instructor track within irrelevant series such as the alphabet ("d, g, 7, e, f, + 3, g, h, = 10, a, z"). Student selects the math fact and records complete fact with answer on student track. He checks his equation on the back of card. The distracting element draws the attention of the student and helps develop auditory memory, using academic facts.

\* \* \*

8. Incomplete math facts are printed and recorded on Language

Master cards and the student responds with the complete problem. A notch is cut through the tape at the bottom of the card enabling the teacher to record a delayed correct response, thus allowing time for the student's answer.



\* \* \*

9. Math operations necessary to a given problem may be structured by placing directions for each step on a separate Language Master card. The visual stimulus may be added to each card also. After completing each step, the student compares his response to the answer on the back of the card.

Example:

Card 1  $93 \overline{)879}$

Card 2 Estimate  $9 \times \underline{\quad} = 87$

Card 3 Place answer from Card #2 above 9 in the dividend (box).

Card 4  $93 \times$  answer from Card #2

Card 5  $879 -$  your answer from Card #4

Card 6 Check Card #5 answer with divisor. It must be smaller.

\* \* \*

10. The teacher pre-records a category on the card. The student then tries to name as many related words as he can before the card goes through the machine.

## TAPE RECORDER

Craig "T" Control Cassette Recorder - Model No. 2603

Approximate Price: \$49.95

This particular recorder was selected because of its optional AC or battery, its light weight, durability, and adaptability for individualized remediation activities. Note: Several comparable recorders are available; some more expensive but with additional features, i.e. Wollensak, with light to indicate volume.

### Activities

1. A story followed by comprehension questions is dictated into the recorder. The student listens and may answer the comprehension questions either on paper or orally. Note: Students who have severe auditory deficits, and who rely upon, and/or are distracted by visual stimuli may find in the initial stages of remediation that blindfolding increases auditory awareness.

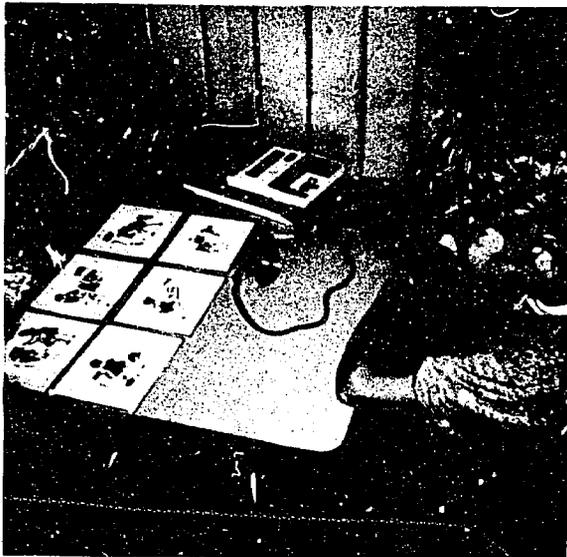
\* \* \*

2. The student listens to a recorded story and then places the events in sequential order. Student response may vary, dependent upon severity of deficit. He may sequence a corresponding set of cards; number in proper sequence a teacher-prepared or commercial worksheet or verbalize the sequence without the visual cue.

\* \* \*

3. The student is presented a series of cards to sequence in a logical order. After rearranging the cards in sequence, he dictates his story to the recorder and monitors his verbal expression, re-taping if necessary.

He then transcribes the story to paper. He listens to the tape again, checking his paper for correct word endings, punctuation and spelling. He then re-writes the story. (For motivation and reward in this exercise, the teacher may then type the story for the child.) In addition to developing verbal and written expression, this activity is helpful in teaching the student monitoring skills.



## LANGUAGE MASTER OR TAPE RECORDER

### Activities

1. The student is asked to listen for words in a specific category. He listens to a pre-taped series of three to five words and responds each time he hears a word fitting into the designated category.

\* \* \*

2. The student listens to three to five pre-taped words within the same category, then names that category.

\* \* \*

3. Upon hearing a category stated, the student responds with two or three words that fit into that category.

\* \* \*

4. The teacher pre-records a sequence of letters on one track. The student repeats the sequence on the other track (or following the cue if on a single track recorder). He then replays both recordings comparing his sequence with the teacher's. In severe cases, the student may be unable to retain a sequence long enough to make a comparison. In such cases, a tutor should help him monitor until he is able to perform the task alone.

\* \* \*

5. The student listens to a pre-taped series of three or more words. He selects and records the word that does not belong. Variations of this might be:

- a) The student listens to pre-taped words and records any that are synonyms.

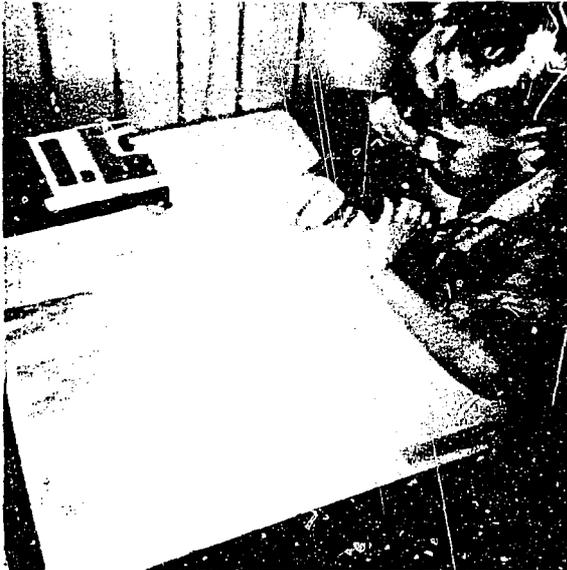
- b) The student listens to three words and records the two that are antonyms.

\* \* \*

6. The student hears a pre-recorded series of letter names, or words, and writes or arranges letters in the correct sequence. A check system may be provided.

\* \* \*

7. The student hears an incomplete problem and is given time to respond on paper before he hears the answer.



\* \* \*

8. The teacher pre-records incomplete words, omitting syllables in the initial, medial or final position. The student records the complete word. Then he listens to the pre-recorded teacher response.

\* \* \*

9. Directions involving a gross motor response (i.e., walk to the door, then bring an eraser from the chalkboard, etc.) are superimposed upon tape with background noise.

\* \* \*

10. The student listens to a tape on which he has described a specific incident. From this, he records each complete idea on a separate Language Master card. He places these in proper sequential order and re-tapes the narrative. The purpose of this activity is to reinforce organization of oral expression.

## DUAL TRACK CASSETTE RECORDER

Craig Audio-Active Comparative Cassette Recorder  
Model No. 8134

Approximate Price: \$149.50

The dual track cassette recorder was selected as an important teaching device for several reasons. The convenience of making an appropriate tape and having a child respond immediately on a second track without erasing the lesson proved to be an effective method for repeating drills necessary for remediation activities. Other attractive features of the dual track cassette recorder are the attached microphone and the amplifying earphones which intensify the auditory stimulus and force attention to the task.

### Activities

1. Sound blending drills such as Hegge, Kirk and Kirk's Remedial Reading Drills are placed on a tape. Using amplified earphones, the student hears the drill and reads along with it.

\* \* \*

2. To help monitor his errors in oral reading, the student uses the dual track cassette recorder to amplify his voice while he reads aloud.

\* \* \*

3. The teacher pre-records a reading lesson at what she feels is the student's optimal pace at that time. The student then reads with the recording while wearing the amplified earphones. This activity can be helpful in developing inflection, speed and accuracy.

\* \* \*

4. The teacher records noises from the school lunchroom, playground, etc. on the first track; then, over this background, math facts or word sequences are recorded on the second track. The student listens and responds to the appropriate stimulus, either saying or writing it. This activity is helpful in developing figure-ground awareness, attention and auditory memory.



DUAL TRACK CASSETTE RECORDER  
OR  
LANGUAGE MASTER

Activities

1. Tapes are made of background noise, i.e., noisy lunchroom, playground noise, etc. Directions or questions requiring a vocal response are superimposed on tape (e.g., "Give your address," "How old are you?" "What is your phone number?").

\* \* \*

2. The teacher records a math fact such as  $3 + 3 = 6$ . The same equation with the missing answer is recorded on a second track. The student must respond within a limited pause on the tape before he hears the correct answer. He tries to beat the answer with his correct response.

## OVERHEAD PROJECTOR

The overhead projector with roller attachment was selected as an essential piece of teaching equipment when it was necessary to provide a strong visual stimulus for particular students. In addition to the projector's ability to intensify visual stimuli, the roller attachment enables the teacher to provide and monitor specific motor models.

### Activities

1. A student sees a design, letter or word which is projected from overhead to a chalkboard. After the stimulus has been withdrawn, the student closes his eyes and begins to write what he saw on a chalkboard or table top. If kinesthetic response is desired, the child merely uses his finger to motorically reproduce model; if visual reinforcement is desired, a large sheet of paper is placed on a table top and student writes the word with a magic marker. (End roll of newsprint is often used for this activity.) The student is encouraged to use large motor movement initially, continuing this activity until he can write the word automatically. When a mistake is made, the incorrect response is immediately removed, the student is re-exposed to the word, and the procedure is repeated. The important step in this remediation procedure is the prevention of errors being reinforced. Therefore, at the first hesitancy or error, student should begin again, with no opportunity to see his former incorrect pattern.

\* \* \*

2. Prepared worksheets, similar to Frostig Figure-ground exercises, are projected on the chalkboard for the student to locate the primary stimulus. For students who have difficulty with any of the prepared materials, the projected and larger stimulus may be helpful in increasing visual awareness.

\* \* \*

3. A transparency of an intricate design is prepared. Shapes, letters, or words are drawn on the overhead projector. The design is placed over the figure and projected on the chalkboard. The child picks out the figure from the design and traces it with his finger or chalk. The task may be made more difficult as the figures are drawn on the overhead with colors closer to the design color.

\* \* \*

4. A spelling word is projected on the chalkboard. The student looks for several seconds while tracing over the model with his finger. The teacher then removes the model, instructing the student to write it on the chalkboard. If he makes an error, he is immediately stopped and begins the initial procedure again. When the student has established automatic gross motor movements for the word, he writes it on paper. If an error is made, he begins at Step 1. This activity is suggested primarily to develop visual memory and automatic writing skills. (The student's current social studies and science units may suggest an appropriate word list.)

\* \* \*

5. Three math facts are projected from a transparency. After the student looks, the overhead is turned off. The student is then asked to write one of the facts; either the first, second, or third. This activity is designed primarily to improve visual memory through a needed math drill.

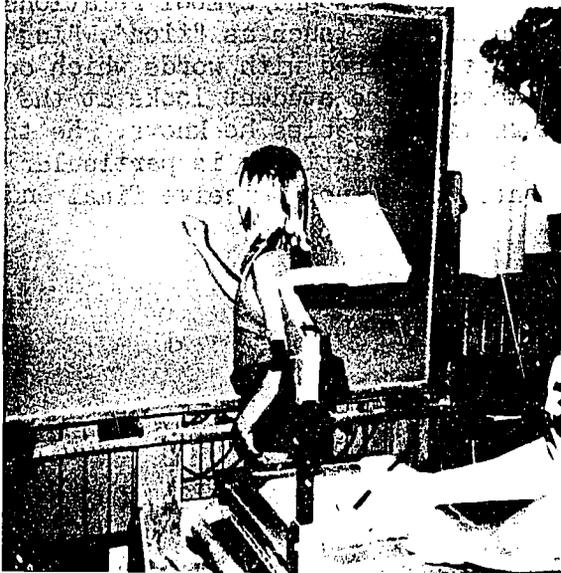
\* \* \*

6. A transparency is made of a phonics drill such as Hegge, Kirk and Kirk Remedial Reading Drills. The

student responds orally by sounding the phonemes or the whole word, depending on whether a synthetic or analytic approach is desired. This activity is included primarily as a variant approach to "drills", yet is equally important for students who may need this visual amplification.

\* \* \*

7. To teach the motor patterns for cursive or manuscript letters or to increase speed in writing them, the teacher writes the letter on the overhead projector for the student to simultaneously trace on the chalkboard.



\* \* \*

8. For the student who needs an intensified stimulus, transparencies of selected worksheets, (e.g., Michigan Tracking Series) may be made. The student tracks the cue on the screen with his finger or a pointer, or on the chalkboard with a marker or chalk. This activity also enables the teacher to pinpoint specific difficulties (left-right; up-down, etc.).

\* \* \*

9. A word is written on a transparency and projected onto the chalkboard. The student slashes the word into syllables. He then sounds out the syllables, blends them into a word, and marks the accented syllable or syllables.

\* \* \*

10. The student establishes sound/symbol relationships for commonly used syllables (such as "tion", "ing", "ly"). A transparency is prepared with words which contain the familiar syllables. The student looks at the projected words and marks the syllables he knows. He then says these syllables. This activity is particularly helpful for students who do not perceive final endings.

## STUDY MATE II PROJECTOR

Graflex - Model No. 8875

Price: Approximately \$25.00

A small, portable, easy to manipulate filmstrip projector was needed that would provide an enlarged visual stimulus that could be rapidly advanced. The Study Mate met this need quite adequately.

Blank tape such as U-Film, or exposed 35mm film which has been stripped in a bleach and water solution, may be utilized by the teacher to produce her own material. (TV stations and commercial photo developers are good sources for discarded film.)



### Activities

1. A filmstrip of letters the student confuses (e.g., b, p, d, q, m, n, etc.) is prepared for use with the Study Mate. The student is asked to respond to one specific letter whenever it appears by giving the name or sound.

\* \* \*

2. Selected filmstrip frames are shown through a filmstrip projector. The student is asked to point out specific shapes from the background (e.g., a frame from an Indian story is shown. The student is asked to point to all the triangles he can find--possibly a tent, design on a blanket, etc.). The school library is a good source for filmstrips which lend themselves to this activity.

\* \* \*

3. The student views a selected frame from a filmstrip. He then tells a story about what he sees. This activity is used in developing verbal expression and visual association.

OVERHEAD, STUDY MATE II  
OR  
FILMSTRIP PROJECTOR

Activities

1. A word or series of geometric shapes is selected by the teacher. It is then flashed one letter or shape at a time on the projection screen while the student is blocking auditorially i.e., reciting nursery rhymes or counting. After the last letter is flashed, the student (still blocking) begins to write the letters or shapes in proper sequence. If the student hesitates or makes an error, the sequence is repeated from the



beginning. The number of attempts necessary for success on each pattern is recorded. This activity is helpful in developing visual sequential memory.

\* \* \*

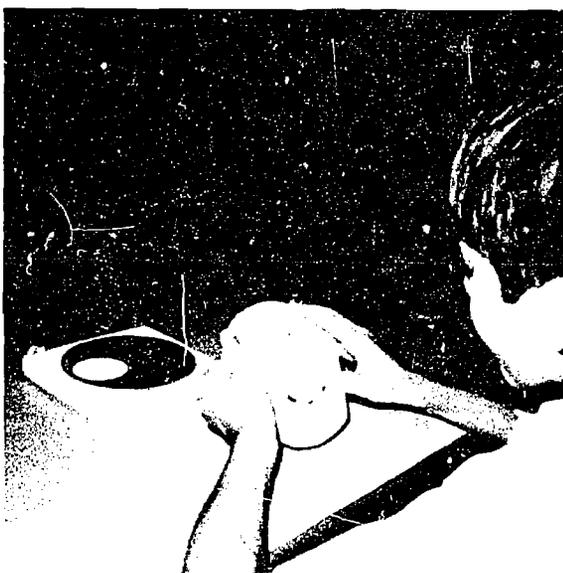
2. Picture symbols, alphabet letters, graphemes or words are presented to the student on a filmstrip. After a few seconds, the student is asked to find and mark the designated cue on a worksheet.

## FLASH-X

Educational Development Laboratories  
Huntingdon, New York

Approximate Price: \$8.50

The Flash-X is a small, individual, single speed, tachistoscope that can be manipulated easily by the student. It has been useful in developing automatic recognition and recall of letters, words, phrases, and math facts. The blank discs that are available with the Flash-X enable the teacher to prepare her own materials for individualizing remediation.



### Activities

1. Common sight words (such as the Dolch list) are placed on Flash-X cards. The student flashes until he can correctly say or write the word.

\* \* \*

2. A blank Flash-X wheel is prepared with numbered words containing prefixes or suffixes. The student looks at each word, then writes the correct base word. He checks his answers by comparing with those on the back of the wheel.

\* \* \*

3. Incomplete math facts ( $3 \times 2$ ,  $4 + 3$ , etc.) are placed on the Flash-X wheel. The student looks and records each complete fact with its answer. He compares his answers with those on the back of the wheel.

## SHADOWSCOPE PACER

Psychotechnics, Incorporated  
1900 Pickwick Avenue  
Glenview, Illinois 60025

Approximate Price: \$98.00

### Activities

1. To speed up response and intensify stimulus, a prepared worksheet or a workbook is placed on a lighted pacer device. The student then marks responses while the lighted pacer moves at a pre-set rate of speed.



\* \* \*

2. The student is presented with a math problem (e.g., double multiplication or long division). He must complete the problem before the lighted pacer reaches the bottom of the page.

\* \* \*

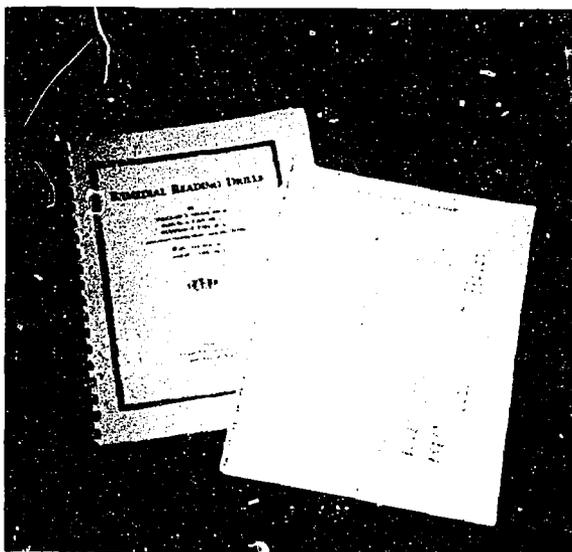
3. The lighted pacer is used to reinforce and increase speed of response to such structured drills as Hegge, Kirk and Kirk and word pages from the Let's Read Series.

HEGGE, KIRK AND KIRK  
REMEDIAL READING DRILLS

George Wahr Publishing Company  
Ann Arbor, Michigan

Approximate Price: \$2.00

A need was seen for a convenient, sequenced program containing a structured approach to sound/symbol relationships. The Hegge, Kirk and Kirk Drills fulfilled this purpose, and offered both analytical and synthetical approaches. In addition to procedures suggested by the authors, the following activities offer variation to the drills.



### Activities

1. Drills from Hegge, Kirk and Kirk may be used by the student for tracking letters, blends, word families, or whole words to force visual attention and discrimination.

\* \* \*

2. Flash cards are made to develop an automatic response to reading words as well as to reinforce the Hegge, Kirk and Kirk Drills.

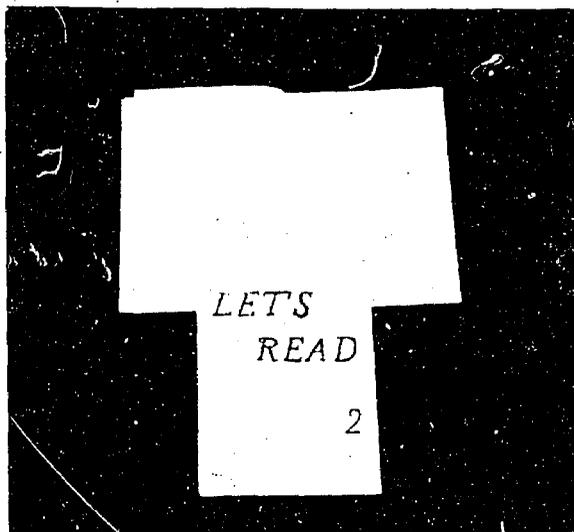
Other activities for flash cards include sorting cards for word families and sorting for individual sounds. Specific letters on the flash cards may be color coded to force visual attention.

LET'S READ SERIES

Clarence L. Barnhart, Incorporated  
P. O. Box 359  
Bronxville, New York

Approximate Price: \$15.00

The Let's Read Series is a structured linguistic reading series containing a sequence of sound/symbol presentations and was chosen because of correlates with the Hegge, Kirk and Kirk Remedial Reading Drills. This series is free from distracting pictures and contextual clues, thus encouraging the student to attend.



## Activities

Pages emphasizing configurations commonly confused by the student may be used for discrimination and memory in the following ways:

1. After completing a page from Let's Read, the student is asked to close the book and repeat or write the last sentence that he has read.

\* \* \*

2. Sentences from Let's Read are dictated for the student to write. These are limited to a certain number of words. The student writes and then proofreads sentences, making necessary corrections. Daily graphs are kept to show performance.

\* \* \*

3. The teacher places an acetate sheet over a word drill lesson. The student circles with a grease pencil the initial word of the drill each time it appears in the section.

\* \* \*

4. The student reads orally pages in appropriate Let's Read book. The teacher and student together graph the time and number of errors. The student is encouraged to improve his score.

\* \* \*

5. The teacher reads orally with the student to help him develop fluency and speed. (See also activities for Tape Recorder.)

## MICHIGAN TRACKING PROGRAM

Ann Arbor Publishers  
611 Church Street  
Ann Arbor, Michigan 48104

The Michigan Tracking Program offers prepared sequential tasks involving symbols, numbers, letters, and words. The reusable workbooks are economical and lend themselves to a variety of activities other than those suggested by the publishers. The following activities are adaptations for remediation of specific difficulties:

### Activities

1. A sequence of pictures, letters, or words is exposed to the student and then covered. The student then tracks and marks the stimulus in sequence in the tracking book. This is helpful in developing visual sequential memory. A record is kept of his time and performance, motivating him to increase speed and accuracy.

\* \* \*

2. The model at the top of the page in the Symbol and Word Tracking workbooks is covered. The teacher dictates this series and student then tracks his response. This variation is appropriate for students who need to develop auditory sequential memory.

\* \* \*

3. For the student who initially has difficulty tracking in a workbook, a transparency of a page is made for the overhead projector. The transparency is projected onto the chalkboard and the student and teacher track together until the child can perform the activity alone.

\* \* \*

4. Remediation activities for visual association or memory can be varied for the student who is also having difficulty transferring from manuscript to cursive; the student writes the cursive letter over the manuscript letter rather than simply marking it.



\* \* \*

5. Students with visual discrimination problems may be asked to track only specific letters (b, d, p, q) that are frequently reversed.

## TEACHER PREPARED MATERIALS

In addition to commercially prepared materials, free and/or inexpensive materials such as old catalogs, telephone books, newspapers and children's magazines are most effective. With only minor teacher adaptation, various remediation activities are suggested. The activities listed below are only suggestions which creative teachers can modify to meet the individual child's needs and which, hopefully, will suggest additional pertinent activities for individualizing remediation.

### Activities

1. Specific letters presenting difficulties (e.g., b, d, p, q, v, u) are presented singly for the student to track on newspaper. Monitoring is essential here; the student should be stopped every time he errs. If he overlooks a specified letter, he is asked to return to the line above to find it.

A variation of this activity would be to present two or more cues simultaneously for the student to seek; using the appropriate mark for each, such as a circle or a box.

Note: Before presenting the task, the teacher must verify the desired letters or words that are included in the particular newspaper paragraph.

\* \* \*

2. Many students write so small they inhibit their visual monitoring system. As an intermediate step between the large newsprint and the commercially prepared primary paper, the want-ad columns in the newspaper may be helpful. The newspaper is turned 90° and the student writes within the ad (horizontal rows). Students who are perfectionists and hesitant to write large on

commercially prepared paper may develop freer motor movements with the awareness that the newspaper will be discarded. (The cluttered background may also force, and hopefully develop, visual attention to the primary task.)



\* \* \*

3. The teacher staples together small sheets of newspaper to use as a spelling workbook. Words may include grade level social studies and science terms. The words are written on newspaper with black or colored magic marker. The student then uses previously described approaches (visual memory with or without

tracing, with or without auditory blocking).

\* \* \*

4. Old catalogs offer a variety of activities to develop association and categorizing skills.
  - a) The teacher cuts out an assortment of pictures which the student is asked to place in specified categories. This activity can be refined from "furniture" and "toys" to "furniture - wooden," "used only in the house," etc.
  - b) The teacher may give the student the catalog section and a category and ask the student to name as many objects as he can which would meet the stated specifications.
  - c) Auditory memory drills can be presented, (e.g., "Turn to page 138, look up the price of a 10-speed bicycle and give me the price"). The directions should vary in specificity according to severity of the deficit.
  - d) For the students with visual memory deficits, the LD teacher may select 'cluttered or busy background' pages on which to write non-phonetic, unfamiliar words. These can be tabbed and used with any student who needs the activity. The drills consists of presenting the word, tracing if suggested for the particular student, and blocking auditorially. The student reproduces the correct pattern upon removal of the stimulus.
  - e) Older students who need to see a practical application of math may be given mock teacher-prepared order sheets and a check made payable to student. The student is asked to order from catalog one of each item (simple addition) or multiples (e.g.,

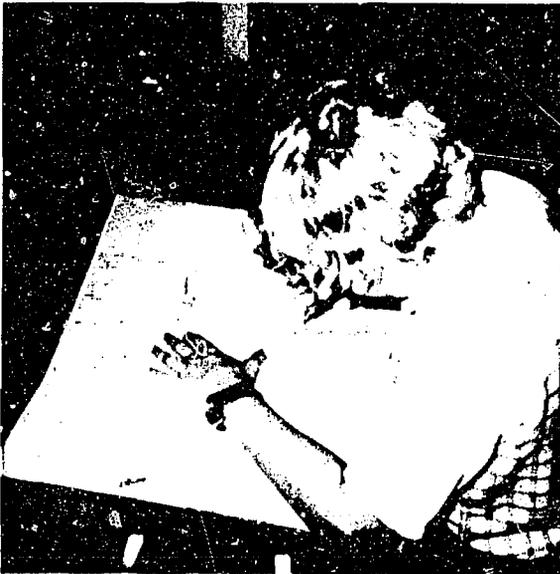
8 bicycles @ \$69.95 catalog listing). Many students with negative attitudes towards math enjoy receiving a teacher-prepared check for \$500.00, from which they must purchase from the catalog a swimming pool, bicycle, camping tent, and computing the amount they will have left in their account.

Note: It is realized these are not primary remediation activities, but the ancillary involvement of locating items in a catalog can also be an informal sequencing drill.

- f. An incomplete math fact is written on one page of the catalog. The student supplies the answer and turns the page to locate and verify his correct response.



commercially prepared paper may develop freer motor movements with the awareness that the newspaper will be discarded. (The cluttered background may also force, and hopefully develop, visual attention to the primary task.)



\* \* \*

3. The teacher staples together small sheets of newspaper to use as a spelling workbook. Words may include grade level social studies and science terms. The words are written on newspaper with black or colored magic marker. The student then uses previously described approaches (visual memory with or without

## TABLES I-V

The purpose of the following tables is to provide an easily accessible framework for locating remediation activities for specific deficits. Each table is divided into primary input/output channels and sub-divided into learning processes.

The tables serve as a cross reference to each activity listed in the brochure. Two symbols are used to designate the channel and the learning processes involved. The "x" refers to the primary purpose or purposes of the activity, and the "\*" to additional or secondary purposes.

In order to conserve space and keep the table concise, generalized topics and some consolidation was necessary in titling the learning processes. In clarifying terminology in the brochure, multisensory refers to using more than one channel for input. Transducing refers to using one channel for input with output expressed primarily through another channel.

TABLE I

	AUDITORY/VOCAL						AUDITORY/MOTOR						VISUAL/VOCAL						VISUAL/MOTOR						MULTISENSORY					
	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Academic Aid	
LANGUAGE MASTER																														
1.			X																											
2.																														
3.																														
4.	X																													
5.			*																											
6. a)			*																											
b)			*																											
7.	X		*																											
8.																														
9.																														
10.																														
TAPE RECORDER:																														
1.																														
2.			X																											
3.																														

X = Primary Purpose  
\* = Additional Purposes



X = Primary Purpose  
 \* = Additional Purposes

TABLE II

	AUDITORY/VOCAL						AUDITORY/MOTOR						VISUAL/VOCAL						VISUAL/MOTOR						MULTISENSORY						Academic Aid		
	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing					
LANGUAGE MASTER/TAPE RECORDER																																	
1.	*	X																															
2.	*	X																															
3.	*	X																															
4.			X																														
5.	*	X																															
6.									*																								
7.									X	X																							*
8.				*	X																												
9.									*																								
10.					*	X			X																								
DUAL TRACK CASSETTE RECORDER																																	
1.	*		*			X																											
2.																																	
3.																																	
4.		X							X	*																							
DUAL TRACK CASSETTE RECORDER OR LANGUAGE MASTER																																	
1.	X	X																															
2.	*		X																														*

TABLE III

X = Primary Purpose  
 \* = Additional Purposes

	AUDITORY/VOCAL						AUDITORY/MOTOR						VISUAL/VOCAL						VISUAL/MOTOR						MULTISENSORY						Academic Aid
	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing			
OVERHEAD PROJECTOR																															
1.																															
2.																															
3.																															
4.																															
5.																															
6.																															
7.																															
8.																															
9.																															
10.																															
STUDY MATE/FILMSTRIP PROJECTOR																															
1.																															
2.																															
3.																															
STUDY MATE/FILMSTRIP/OVERHEAD																															
1.																															
2.																															

TABLE IV

X = Primary Purpose  
\* = Additional Purposes

	AUDITORY/VOCAL						AUDITORY/MOTOR						VISUAL/VOCAL						VISUAL/MOTOR						MULTISENSORY					
	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Academic Aid	
FLASH-X																														
1.																														
2.																														
3.																														
SHADOWSCOPE PACER																														
1.																														
2.																														
3.																														
HEGGE, KIRK & KIRK REMEDIAL READING DRILLS																														
1.																														
2.																														
PT'S READ																														
1.																														
2.																														
3.																														

TABLE V

X = Primary Purpose  
\* = Additional Purposes

	AUDITORY/VOCAL						AUDITORY/MOTOR						VISUAL/VOCAL						VISUAL/MOTOR						MULTISENSORY						
	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Reception	Association	Memory	Closure	Expression	Sound Blending	Transducing	Academic Aid		
1.								*							*																
2.								X																							
3.															X	X	X	*													
4.															X																
5.																	X														
1.																															
2.																															
3.															*																
4. a)																															
b)															X																
c)																															
d)																															
e)																															
f)																															
5.																															

TEACHER MADE MATERIAL

MICHIGAN TRACKING PROGRAM